23 June 1964

MEMORANDUM FOR THE RECORD

See the Trip Report covering the period 8 - 11 June 1964 for comments concerning this project.

[redacted]
Admin. Monitor, Contract [redacted]
Development Branch, P&DS

25X1
25X1

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File R&D
PAR-210
25 May 64

PS/2 - 153/64
8 May 64

MEMORANDUM FOR: Chief, Production Staff/PID

THROUGH : Chief, Operational Support Section PS/PID

25X1 FROM : [redacted]

25X1 SUBJECT : [redacted] Trip Report, 27-29 April 1964

1. On 27 to 29 April I visited the [redacted] 25X1
25X1 [redacted] to review progress on contract [redacted] PAR-210, 25X1
regarding experimentation of methods to eliminate the "buckling" of film in glass mounted slides projected in the RA-60 Teleprompter projector.

2. Using an RA-60 projector supplied by PID, [redacted] first 25X1
ran a test which determined the operating temperature in the projector aperture to be 240 degrees. Two steps were then taken to reduce this excessive heat. First, a curved piece of aluminum was installed in the front of the projector lamphouse to direct a greater amount of air flow from the blower to the aperture. This reduced the aperture temperature only 20 degrees. Secondly, an auxiliary blower was installed on the front of the projector with its air flow directed on the aperture. This reduced the aperture temperature an additional 105 degrees - to 115 degrees, which was considered acceptable.

25X1 3. [redacted] next tests involved laminating the transparency to a single sheet of glass. It was believed that, if successful, this mounting system would further reduce the possibility of film "buckling". Prior to my arrival [redacted] had prepared several 25X1
slides which consisted of film laminated to one piece of 3¼" x 4" gelatingcoated glass. In a demonstration two of these slides were projected continuously for 30 minutes with the two blower system and for 15 minutes using the projectors original blower only with no visible damage to the film. When I learned that these slides had been dried for approximately 24 hours from the time they were laminated until they were projected, I suggested that we attempt to reduce this drying period to the minimum.

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4. During the balance of my visit I assisted [redacted] 25X1 [redacted] in conducting lamination tests ranging from projection immediately after laminating to projection after a 17½ hour drying period. At this time it appears that a minimum of 5 hours drying time is required before the slide can safely be projected.

5. Our tests also explored the technique of softening the gelatin on the coated glass prior to lamination. One system involved utilization of vapor from a heated solution containing 85% water and 15% alcohol. The other involved the application of a 40% water - 60% alcohol solution directly to the glass. In my opinion the latter was the most effective, however, Mr. 25X1 [redacted] felt that with further research the vapor technique could be perfected.

6. As an essential element of the laminating process Mr. 25X1 [redacted] has developed a laminating machine which positions both the glass and the film and incorporates a roller to press them together to form an air-free seal. Of particular significance in its ability to correctly align the film on the glass.

[redacted] 25X1

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